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Agricultural Memorandum No 483

Drainage efficiency and lateness in spring cultivations - SOUTH

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The presentation of Ag Mem 478 is reported for six stations in the SOUTH, namely

Wimborne (Dorset)
Bishops Cannings (Wilts)
Andover (Hants)
Wisley (Surrey)
Horsham (Sussex)
Maidstone (Kent)

The rainfall at these stations is normally higher than at those in the previous areas, but this is compensated for by the tendency to longer dry spells. Comparison of potential losses is as follows:-

<u>Schedule</u>	<u>Good Drainage (A)</u>			<u>Bad Drainage (D)</u>		
	<u>East</u>	<u>South</u>	<u>North East</u>	<u>East</u>	<u>South</u>	<u>North East</u>
7 days	1.25	1.81	1.35	5.33	6.77	7.55
10 days	2.22	3.01	2.81	8.23	10.00	12.08
14 days	4.10	4.89	5.32	13.09	15.54	19.25

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell

August 1972

7-day Schedules

<u>Date</u>	<u>Drainage</u>	<u>Wimborne</u>				<u>Bishops Cannings</u>			
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15		117	109	103	99	117	105	92	83
March 15-21		11	9	8	6	14	15	14	14
" 22-28		5	8	7	7	3	6	12	13
" 29-4		2	3	7	5	1		3	7
April 5-11		2	6	6	10	2	6	6	9
" 12-18		3	1	1	2	3	3	3	3
" 19-25			4	8	10		3	5	6
" 26-2							1		
May 3-9					1		1		
" 10-16									
Lost								1	
								4	5
Percentage loss of Yield		1.9	3.5	4.9	6.4	1.8	4.1	8.0	9.4

	<u>Andover</u>				<u>Wisley</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15	117	109	98	93	118	108	96	88
March 15-21	15	21	24	23	12	18	22	21
" 22-28	2	1	5	8	5	6	5	8
" 29-4				2			4	6
April 5-11	1	3	4	5		2	2	3
" 12-18	3	1			4	2	2	4
" 19-25	2	4	6	6	1	4	7	7
" 26-2							2	2
May 3-9		1	3	2				1
" 10-16								
Lost				1				
Percentage loss of Yield	2.0	3.0	4.7	5.6	1.9	2.9	4.9	6.3

<u>Date</u>	<u>Drainage</u>	<u>Horsham</u>				<u>Maidstone</u>			
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15		117	108	95	89	122	108	90	77
March 15-21		14	17	21	19	14	20	30	33
" 22-28		2	4	8	11	2	2	1	4
" 19-4			2	1	3		3	3	5
April 5-11		2	4	8	7		3	5	5
" 12-18		3	1	1	3	2	3	5	6
" 19-25		2	4	6	6		1	5	7
" 26-2								1	2
May 3-9					2				1
" 10-16									
Lost									
Percentage loss of Yield		2.1	3.0	4.5	6.0	1.1	2.6	5.0	7.1

10-day Schedules

<u>Date</u>	<u>Drainage</u>	<u>Wimborne</u>				<u>Bishops Cannings</u>			
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15		156	147	137	127	151	133	112	99
March 15-21		15	12	11	12	25	25	22	23
" 22-28		12	11	8	9	9	14	18	17
" 29-4		6	10	11	7	1	4	12	15
April 5-11		5	8	14	16	5	9	9	13
" 12-18		3	3	4	7	4	4	8	9
" 19-25		3	9	12	12	3	6	10	13
" 26-2				1	2	2	1	1	2
May 3-9				2	4		1		
" 10-16					3		2	1	1
Lost					1		1	7	8
Percentage loss of Yield		3.0	4.6	6.7	9.5	3.3	6.1	10.5	12.6

	<u>Andover</u>				<u>Wisley</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15	155	143	128	120	152	139	120	107
March 15-21	26	30	31	27	27	30	31	32
" 22-28	5	9	12	13	9	9	16	18
" 29-4	1		3	7		5	8	8
April 5-11	3	6	8	10	3	4	5	8
" 12-18	3	1	3	5	4	3	5	9
" 19-25	5	7	7	8	5	9	8	9
" 26-2	1		1	1		1	3	3
May 3-9	1	4	4	3			3	2
" 10-16			1	1			1	2
Lost			2	5				2
Percentage loss of Yield	3.2	4.5	7.0	9.2	3.0	4.4	6.9	9.2

<u>Date</u>	<u>Drainage</u>	<u>Horsham</u>				<u>Maidstone</u>			
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15		152	141	126	116	150	132	107	90
March 15-21		26	27	26	23	33	38	40	40
" 22-28		6	12	15	17	8	5	12	15
" 29-4		3	2	5	8	2	6	10	12
April 5-11		5	9	10	12	2	7	8	9
" 12-18		3	2	4	7	4	6	8	10
" 19-25		5	7	9	9	1	6	10	14
" 26-2				2	3			3	4
May 3-9				3	2			2	3
" 10-16									3
Lost					3				
Percentage loss of Yield		3.1	4.1	6.5	8.9	2.4	4.5	7.6	10.6

14-day Schedules

<u>Date</u>	<u>Drainage</u>	<u>Wimborne</u>				<u>Bishops Cannings</u>			
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15		200	183	166	151	178	152	127	111
March 15-21		19	22	22	21	39	39	35	33
" 22-28		15	11	11	14	25	23	23	19
" 29-4		21	19	17	13	11	19	22	25
April 5-11		11	17	19	19	10	12	15	19
" 12-18		6	7	10	12	4	12	15	17
" 19-25		8	13	17	19	7	11	20	20
" 26-2			3	3	7	2	4	5	6
May 3-9			5	7	6	1	1	4	7
" 10-16				7	10	3	2	3	9
Lost				1	8		5	11	14
Percentage loss of Yield		4.6	7.2	10.6	13.8	5.6	9.4	14.4	18.3

	<u>Andover</u>				<u>Wisley</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15	190	172	147	134	182	162	135	115
March 15-21	40	41	42	39	44	45	46	43
" 22-28	21	16	17	17	24	25	27	24
" 29-4	4	12	12	9	6	15	14	21
April 5-11	7	13	15	18	6	7	12	16
" 12-18	3	7	12	15	5	7	16	18
" 19-25	7	7	16	19	10	10	13	14
" 26-2	2	1	1	3	3	3	4	8
May 3-9	6	6	4	6		3	4	6
" 10-16		3	5	7		3	3	5
Lost		2	9	13			6	10
Percentage loss of Yield	5.1	7.5	12.1	15.5	4.8	6.3	11.3	15.2

<u>Date</u>	<u>Drainage</u>	<u>Horsham</u>				<u>Maidstone</u>			
		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Before March 15		189	174	153	139	173	148	118	97
March 15-21		39	37	33	29	53	52	50	49
" 22-28		19	20	21	21	20	20	20	18
" 29-4		6	12	17	13	12	19	22	21
April 5-11		11	13	17	19	9	12	17	15
" 12-18		7	7	11	14	5	11	16	19
" 19-25		7	10	15	19	8	13	20	24
" 26-2		2	4	6	14		4	4	11
May 3-9			3	3	4		1	5	3
" 10-16					1			7	17
Lost				4	7			1	6
Percentage loss of Yield		4.6	6.4	9.8	12.7	4.6	7.4	12.3	17.8

Average Yield Percentage Losses for SOUTHERN Area

<u>Schedules</u>	<u>Drainage</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
7-day	1.81	3.18	5.33	6.77
10-day	3.01	4.68	7.54	10.00
14-day	4.89	7.37	11.74	15.54